AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-6. (canceled)

7.   (currently amended)   A method of configuring a downlink signal in an orthogonal frequency division multiplexing access-frequency division duplexing (OFDMA-FDD) mobile communication system, said method comprising:

(a)   configuring a downlink frame with a plurality of symbols; and

(b)   for each symbol, allocating a plurality of traffic subcarriers and a plurality of pilot subcarriers, said pilot subcarriers being distributed with respect to both time and frequency , a part of said pilot subcarriers being reference for a mobile station to perform time synchronization, frequency synchronization, and cell search;

wherein

the pilot subcarriers are distributed at regular intervals with respect to time , and are distributed at irregular intervals with respect to frequency;

said system comprises a plurality of cells;

the pilot subcarriers are allocated to the cells according to proper position sets of pilot subcarriers so that the pilot subcarriers in adjacent cells are not superimposed;

when the number of cells is greater than an available number of the proper position sets , the pilot subcarriers are allocated so as to minimize a number of pilot subcarriers that are superimposed in non-adjacent cells;

the cells are divided into groups of cells;

a predetermined number of said pilot subcarriers are allocated for each cell, said

predetermined number being generated by dividing the number of subcarriers by the number of cells;

as to insufficient pilot subcarriers, part of said pilot subcarriers being allocated for each cell are allocated to the cells which have the same position in different groups; and

~~The method of claim 6, wherein~~ the proper position set K_{ig+j} of pilot subcarriers allocated to each jth cell of each ith cell group is determined according to the following equations

$$K = \{f_{K,0}, f_{K,1}, \cdots, f_{K,gNp-1}\}$$

$$h_i(k) = v(k) + (ik)modg$$

$$K_{ig+j} = \{f_{K,r} \mid r = kg + (h_{imodg}(k) + j)modg\}$$

where

g is a prime number that satisfies Nu/Np ≥ g;

Nu is the number of subcarriers;

Np is the number of subcarriers included in each cell group;

G is the number of cells in each cell group, wherein G < g;

K is a set of subcarriers $f_{K,0}$, $f_{K,1}$,...$f_{K,gNp-1}$ selected to be pilot subcarriers;

h_{imodg} is a default sequence allocated to the ith cell group; and

v(k) is a specified pseudo random sequence having values from 0 to (g-1).

8. **(currently amended)** The method of claim 7, wherein the pilot subcarriers are not punctured ~~and transmitted~~ at a position other than the position of subcarriers used for transmission to the mobile station, whereby the pilot subcarriers are not transmitted.

9-31. (canceled)